

APRIL/MAY 2024

**FCA41/FCS41/CCA41/CCS41 —  
RELATIONAL DATABASE MANAGEMENT  
SYSTEMS**

Time : Three hours

Maximum : 75 marks

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What is View of data?
2. Define the term – Weak entities.
3. What are Joined Relations?
4. Give an example for Nested Sub-query.
5. What is Third Normal form?
6. What is functional dependency?
7. What is Tertiary storage?
8. Define the term — Data dictionary storage.
9. What is Deadlock?
10. Mention the failure classification in Recovery system.

**SECTION B — (5 × 5 = 25 marks)**

Answer ALL the questions.

11. (a) Discuss on Database system applications and Database languages.

Or

- (b) Explain the history and purpose of Database systems.

12. (a) Describe the Set operations in SQL.

Or

- (b) Discuss on the use of Aggregate functions and Null values in SQL.

13. (a) Explain the Pitfalls in Relational database design.

Or

- (b) Describe about the First and Second Normal forms with examples.

14. (a) Discuss on File organization.

Or

- (b) Explain the organization of Magnetic disks.

15. (a) Describe about Transaction concept and Transaction states.

Or

- (b) Discuss on Log-based Recovery in Recovery system.

**SECTION C — (3 × 10 = 30 marks)**

Answer any THREE questions.

16. Describe about the Database architecture with neat diagram.

17. Discuss on Relational model concepts and Relational constraints.

18. Explain the Boyce-codd Normal form, Fourth and Fifth Normal forms with examples.

19. Describe the RAID organization in detail.

20. Discuss on Join operation in Query processing.
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